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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/902,371	07/29/97	BHATIA R	42390.P4624

EXAMINER	
LEA EDMONDS,L	
ART UNIT	PAPER NUMBER
2835	12

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DATE MAILED: 10/13/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/902,371	Applicant(s) Rakesh Bhatia
	Examiner Lisa S. Lea-Edmonds	Group Art Unit 2835

☒ Responsive to communication(s) filed on *Sep 23, 1999*

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *12-22 and 25-30* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *12-14, 16-22, 25-27, and 29* is/are rejected.

☒ Claim(s) *15, 28, and 30* is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Continued Prosecution Application

1. Receipt is acknowledged of the "conditional" request on 09/23/99 for a Continued Prosecution Application (CPA) filed under 37 CFR 1.53(d) based on prior Application No. 08/902,371. Any "conditional" request for a CPA submitted as a separate paper is treated as an unconditional request for a CPA. Accordingly, the request for a CPA application is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 12, 14, 20, 25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penniman et al. et al. in view of Ohashi et al.. With respect to claims 12, 14, 20, 25, and 29, Penniman et al. teaches a portable computer (10) having a keyboard (22) with a thermally conductive support plate (28), a flat heat pipe (34) having an open area sized to accommodate a component and which covers a portion of the bottom surface of the keyboard support plate, and a heat generating device (42) thermally coupled to the heat pipe. However, Penniman et al. lacks

the teaching of an air moving means. Ohashi et al. teaches a fan (4) being used to move air throughout a portable computer for cooling. It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate the fan structure of Ohashi et al. with the teachings of Penniman et al. to increase air flow in the portable computer.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Penniman et al. in view of Ohashi et al. as applied to claim 12 above, and further in view of Carlsten et al.. Penniman et al. et al. teaches a portable computer as claimed in claim 12, however, Penniman et al. lacks the teaching of a flat heat pipe having micro channels. Carlsten et al. teaches a flat heat pipe having micro channels (see for example any of figures 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate the flat heat pipe structure of Carlsten et al. with the teachings of Penniman et al. to increase fluid flow in the flat heat pipe.

5. Claims 16-19 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penniman et al. et al. et al. et al. as applied to claims 12, 14, 20 and 25 above, in view of Ohashi et al., and in further view of Dinh et al.. With respect to claims 16-19 and 21-22, Penniman et al. in view of Ohashi et al. teaches a portable computer as claimed in claims 12, 14, 20 and 25. However, Penniman et al. as modified by Ohashi et al. lacks the teaching of a temperature sensing device and a control circuit for switching the fan on and off. Dinh et al. teaches a temperature dependent fan control circuit which senses the heat form any heat producing element within a personal computer and adjusts the voltage applied to the fan. It would have been obvious to one

of ordinary skill in the art at the time the invention was made to integrate the temperature dependent fan control circuit of Dinh et al. with the teachings of Penniman et al. and Ohashi et al. to protect the portable computer from over heating and/or damage due to excess heat.

6. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penniman et al. et al. in view of Ohashi et al.. With respect to claims 26, and 27, Penniman et al. in view of Ohashi et al. teaches an apparatus as claimed in claim 25. However, Penniman et al. in view of Ohashi et al. lacks the teaching of the flat heat pipe covering at least one-half or the entire surface area of the bottom surface of the keyboard support plate. With respect to the size of the flat heat pipe it is noted that any size flat heat pipe would accomplish the same purpose. There is no unobviousness in the flat heat pipe being different sizes so long as the same function is preformed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use any size flat heat pipe to aid in the removal of heat from a heat producing element.

Allowable Subject Matter

7. Claims 15, 28, and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 09/29/99 have been fully considered but they are not persuasive. It is the examiners position that the combination of Penniman et al., Ohashi et al. and Dinh et al. meet all of the claimed limitations as sited in the above rejection. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Also in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 19880; *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one of ordinary skill in the art would in fact and a fan to any computer system having heat generating components to aid in the removal of heat therein and also provide controlling circuitry to prevent over heating of the fan and/or the computer system. With respect to applicants' argument of both Penniman et al. and Ohashi et al. as stated on page 8 of the Preliminary amendment and reply of 09/23/99, it is the examiner's position that Penniman et al. statements in column 2 lines 1-24, does teach away form the use of fans and/or finned heat sinks only when power consumption is a concern, however the statements

do not teach away from the use of a fan and/or finned heat sink when power consumption is not a problem, ie. when the user is using AC/DC power that is not a battery. With respect to Ohashi statements in column 1 lines 30-41 and 60-63, it is the examiner's position that Ohashi et al. statements are directed to reducing the thickness of the case of a computer by reducing the thickness of a fan housing, thus falling in line with the space concerns of Penniman et al., and thus providing motivation to combine the prior art as suggested in the above rejections of applicants claimed invention.

Conclusion

9. This is a continuation of applicant's earlier Application No. 08/902/317. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa Lea-Edmonds whose telephone number is (703) 305-0265. The examiner can normally be reached on Monday - Friday from 6:30 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on (703) 308-0538. The fax phone number for this Group is (703) 305-3431,32

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-1782.

LL-E
October 12, 1999

Leo P. Picard
Supervisory Patent Examiner
Technology Center 2800